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Economics and the World Around You

FUNDAMENTAL QUESTIONS

1. What is economics?
2. What are the principles of economics?
3. What are opportunity costs?
4. How are specialization and opportunity costs related?
5. Why does specialization occur?
6. What are the benefits of trade?

Preview

Two women duked it out. Two men crashed their cars. One woman wrote a letter to her grandmother and read 150 pages in a paperback while sitting for 3 and a half hours. Why? Cheap gas. To announce the grand opening of Circle K's first new stores in five years, the company sold gasoline between 10 A.M. and noon on a Saturday for the price of \$.49 per gallon. Whitney Hamilton got in line at 6:30 A.M. "I was in line before there was a line. I've never seen gas prices this low. I don't think I'll ever see them this low again." Vera Lujan drove the 15 or so miles from her home, arriving at 8 A.M. Seven cars were ahead of her. "I was already on empty, so I put in \$1.00 and drove over," Lujan said. A 15-gallon limit on the fill-ups was enforced. "I think I burned more gas than I'm going to get," Ben Valdez said as he approached the pumps after waiting 90 minutes. A fistfight broke out when one woman tried to cut in front of another. John Fecther came for the gas but saw the long lines and tried to make a U-turn away from the area. He was hit by another vehicle. "I was going to get the heck out of here," he said as he filled out a police report. "People are crazy. You're only going to save a little."

The people in this story decided to purchase 15 gallons of gas at the very low price of \$.49 per gallon. In so doing they had to wait in line more than an hour and in some cases travel several miles to the store. At a price of \$1.20 per gallon, the \$.49 per gallon saved about \$10. But don't forget the time and the gas burned in waiting. These are costs as well. Nevertheless, comparing the costs to the savings, many people decided it was worthwhile to make the trip, wait in line, and purchase the gas.

Choices like these are made all the time. To some of us, the decision to purchase the gas might seem silly. To others, it is very reasonable. But for all of us, the process of deciding whether to purchase the gas or not is basically the same. We compare the costs of the decision to the benefits.

We all have to make choices all the time. Why? Because we don't have everything we want and we can't get everything we want. Since you are reading this text you are most likely taking some type of post-high school economics class. Are you at the same time working 40 hours a week, playing tennis or golf, cycling, surfing, watching a movie, reading a novel, and socializing with friends? Probably not. You simply don't have time to do it all. You have to select some of these activities and forgo others. This is what economics is about—trying to understand why people do what they do.

To study economics is to seek answers: why people choose to devote a considerable amount of time to purchase cheap gasoline; why economies go through cycles, at times expanding and creating new jobs or dipping into recessions; why some people lose jobs to join the ranks of the unemployed while others who are unemployed find new jobs; why some people live on welfare; why some nations are richer than others; why the illegal drug trade is so difficult to stop; why health care is so expensive; or, in general, why the world is what it is.

People have unlimited wants—they always want more goods and services than they have or can purchase with their incomes. Whether they are wealthy or poor, what they have is never enough. Since people do not have everything they want, they must use their limited time and income to select those things they want most and forgo the rest. The choices they make and the manner in which the choices are made explain much of why the real world is what it is. ■

1. THE DEFINITION OF ECONOMICS

Why are diamonds so expensive while water and air—necessities of life—are nearly free? The reason is that diamonds are relatively more scarce, that is,

relative to the available quantities, more diamonds are wanted than water or air. Actually, air is not always cheap or free. In Mexico City, air, at least breathable air, is far from free. One of the most successful new business ventures in Mexico City is providing clean, breathable air. In this city of 19 million people and 3 million cars, dust, lead, and chemicals make the air unsafe to breathe more than 300 days a year. Private companies are now operating oxygen booths in local parks and malls. Breathable air, which costs more than \$1.60 per minute, has become a popular product.

Why is breathable air in Mexico City rather expensive while in Douglas, Arizona it is free? The same reason diamonds are relatively more expensive than water or air. Breathable air in Mexico City is more scarce than it is in Douglas, Arizona. Diamonds are more scarce than water and air, in general.

1.a. Scarcity

■ **scarcity:**

occurs when the quantity people want is greater than the quantity available

■ **free good:**

a good for which there is no scarcity

■ **economic bad:**

any item for which people pay to have less

■ **resources:**

inputs used to create goods and services

■ **land:**

the general category of resources encompassing all natural resources, land, and water

■ **labor:**

the general category of resources encompassing all human activity related to the productive process

■ **capital:**

the equipment, machines, and buildings used to produce goods and services

■ **financial capital:**

the stocks and bonds used to purchase capital

Scarcity refers to the idea that there is not enough of something to satisfy everyone who would like that something. If there is enough of an item to satisfy wants, even at a zero price, the item is said to be a **free good**. If people would pay to have less of an item, that item is called an **economic bad**. Examples include pollution, garbage, and disease.

Some goods are used to produce other goods. For instance, to make chocolate chip cookies we need flour, sugar, chocolate chips, butter, our own labor, and an oven. To distinguish between the ingredients of a good and the good itself, we call the ingredients **resources**. (Resources are also called factors of production and inputs; the terms are interchangeable.) The ingredients of the cookies are the resources, and the cookies are the goods.

As illustrated in Figure 1(a), economists have classified resources into three general categories: land, labor, and capital.

1. **Land** includes all natural resources, such as minerals, timber, and water, as well as the land itself.
2. **Labor** refers to the physical and intellectual services of people and includes the training, education, and abilities of the individuals in a society.
3. **Capital** refers to products such as machinery and buildings that are used to produce other goods and services. You will often hear the term *capital* used to describe the financial backing for some project to finance some business. Economists refer to funds used to purchase capital as **financial capital**.

People obtain income by selling their resources or the use of their resources, as illustrated in Figure 1(b). Economists define payment to the owners of land as rent, payment to people who provide labor services as wages, and payment to owners of capital as interest.

Figures 1(a) and 1(b) are linked because the income that resource owners acquire from selling the use of their resources provides them the ability to buy goods and services. And producers use the money received from selling their goods to pay for the resource services. In Figure 1(c), the flows of money are indicated along the outside arrows, and the flows of goods or resource services are indicated along the inside arrows. The resource services flow from resource owners to producers of goods in return for income; the flows of goods go from the producers of the goods to resource owners in return for the money payment for these goods.

1.b. Opportunity Costs

Scarcity of resources (and thus income) means that choices have to be made. A choice is simply a comparison of alternatives. For instance if you were

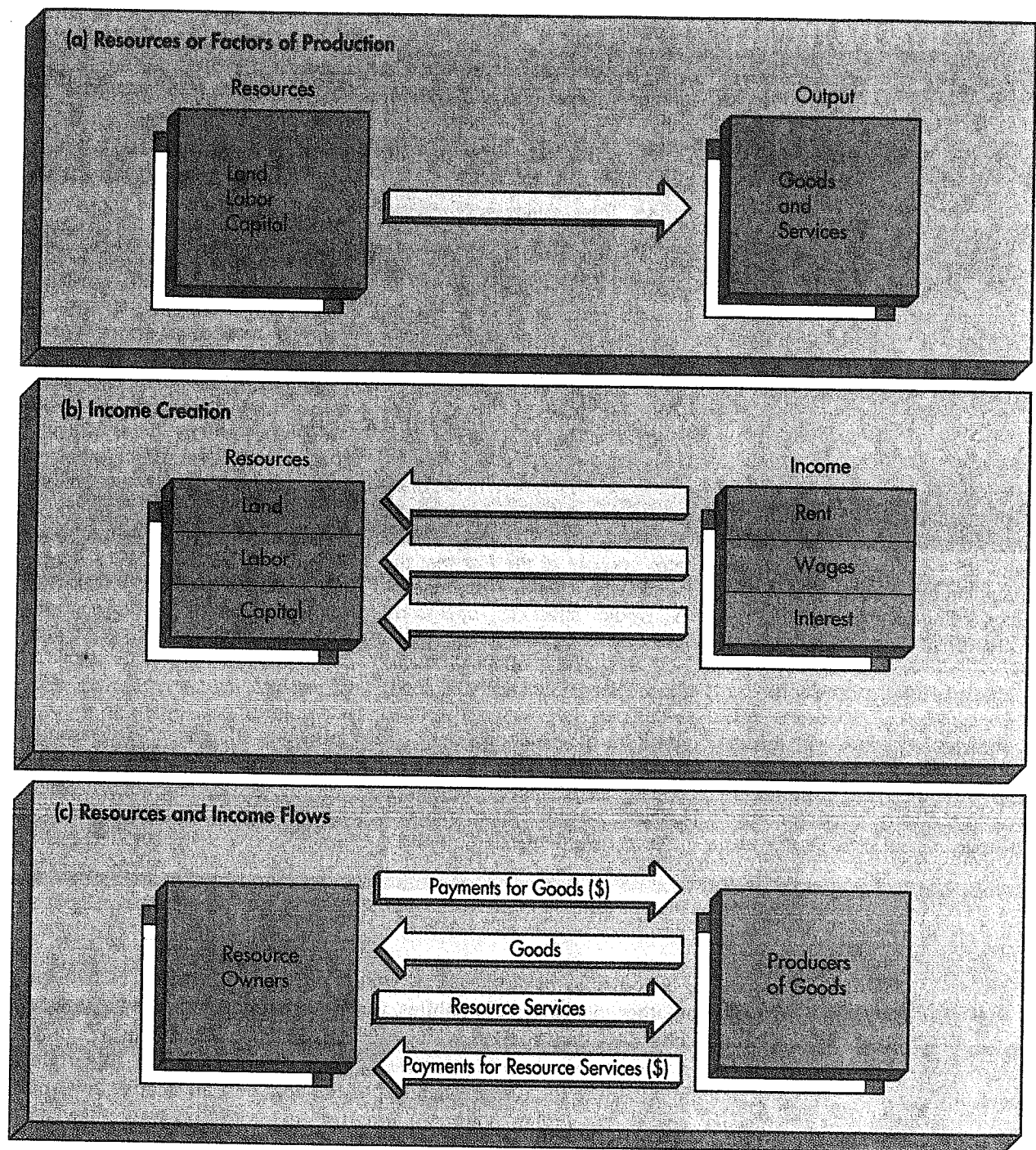


Figure 1
Flow of Resources and Income

Three types of resources are used to produce goods and services: land, labor, and capital. See 1(a). The owners of resources are provided income for selling their services. Landowners are paid rent, laborers receive wages, and capital receives interest. See 1(b). Figure 1(c) links Figures 1(a) and 1(b). People use their resources to acquire income with which they purchase the goods they want. Producers use the money received from selling the goods to pay for the use of the resources in making goods. Resources and income flow between certain firms and certain resource owners as people allocate their scarce resources to best satisfy their wants.

Diamonds and Water

For over two hundred years economists have grappled with the problem of why diamonds are so expensive and water so inexpensive when water is so much more useful and necessary. The answer is that relative to the available quantities, more diamonds are wanted than water. Interestingly though, diamonds are not all that scarce. The amount of diamonds available for sales has been tightly and carefully controlled. For about 100 years there has been only one source for diamonds, DeBeers, the South African company, which sells its own diamonds and those from other sources through a single agency, the Central Selling Organization.

The Central Selling Organization, has operated what it calls a single channel marketing system on behalf of the world's big producers, such as Botswana, Namibia, and Russia, and for De Beers' own mines in South Africa. The Selling Organization manages the stock of diamonds so that prices remain high. During bad

times, the organization stockpiles diamonds, storing them until times improve. Then, during good times, the organization releases diamonds to the market in a carefully controlled stream.

Many people argue that De Beers is a monopolist—the only seller—and should, therefore, not be allowed to remain in business. In the United States, monopolies are illegal unless specifically created by government. In most developed countries, monopolies are either illegal or seriously frowned on. De Beers is very careful not to have any assets in the United States because of the fear that the United States' laws against monopolies would affect its operations. Other countries, like Britain, have decided that a monopoly in diamonds doesn't matter. Diamonds aren't used for anything, so who cares if there is a monopoly.

Although diamonds are not particularly useful, they have always fascinated people. Part of the fascination is how they reflect light, and

part of the fascination is the symbol of wealth, success, and love. An American advertising agency invented the slogan "A Diamond is For Ever" for De Beers as long ago as 1948. De Beers spends about \$200 million a year promoting diamonds as love tokens. Japanese couples once sipped cups of tea when they became engaged to be married. De Beers persuaded many of them to give diamond engagement rings instead. Japan is now the second largest market for diamonds, after the United States.

It may be time for a change, however, as two big newcomers begin to mine diamonds in Canada's Northwest Territories. Broken Hill Proprietary is Australia's biggest company, and Rio Tinto is the world's biggest mining group. They are breaking ground for major mining operations and plan to sell outside of the Central Selling Organization.

* **opportunity costs:**
the highest valued alternative that must be forgone when a choice is made

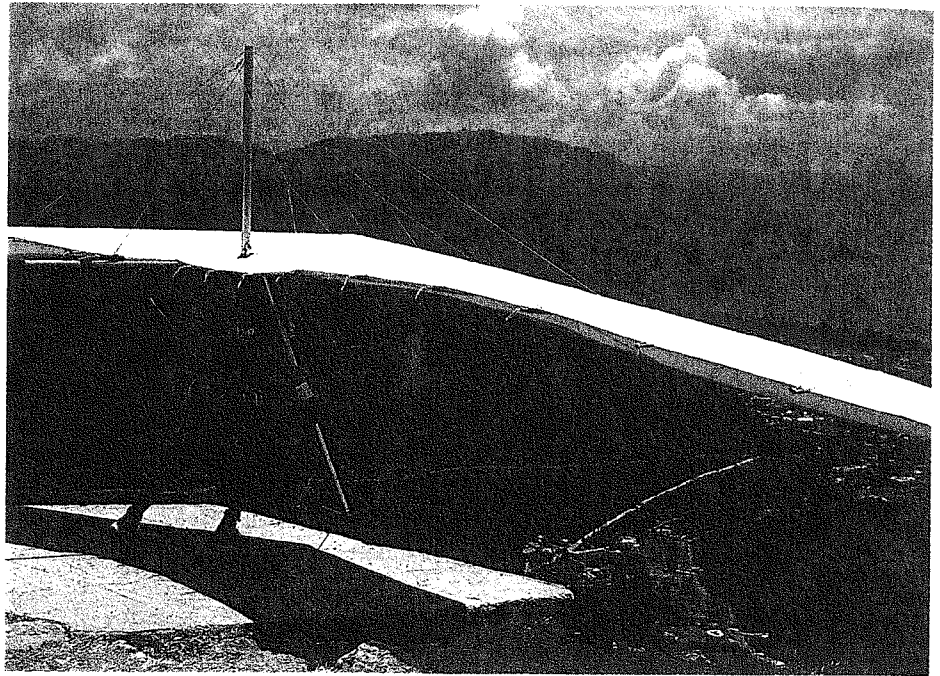
deciding whether to buy a new car, what would your alternatives be? They would be other makes of automobiles, trucks, even bicycles. They also would be virtually anything else on which the money could be spent. When you choose one thing, the benefits you might get from other things are forgone. Economists refer to the forgone benefits of the next best alternative as **opportunity costs**—the highest-valued alternative that must be forgone when a choice is made.

Opportunity costs are part of every decision and activity. Your opportunity costs of reading this book are whatever else you could be doing—perhaps watching TV, talking with friends, working, or listening to music.

1.b.1. The Opportunity Cost of Going to School Suppose you decided to attend a school where the tuition and other expenses add up to \$4,290 per year. Are these your total costs? If you answer yes, you are ignoring opportunity costs. If instead of going to school you would have chosen to work full time, then the benefits of full-time employment are your opportunity costs. If you could have obtained a position with an annual income of \$20,800, the actual cost of school is the \$4,290 of direct expenses plus the \$20,800 of forgone salary, or \$25,090.

Each term you must decide whether to register for school or not. You could work full time and not attend school, attend school and not work, or work part time and attend school. The time you devote to school will decrease as

Having only a few minutes before his economics class begins, and having to reach the building located on the lower peninsula, this student grabs his hang glider and prepares to jump off the cliff. He knows that instead of attending class, he might continue hang gliding, hike in the Guatemalan mountains, or sail in the beautiful waters. However, he has compared benefits and costs of attending class versus not attending; he decided to attend class.



tradeoffs:
what must be given up to
acquire something else

you devote more time to work. You trade off hours spent at work for hours spent in school. If you went to school full time, you might earn the highest grades. As you work more hours, you gain additional income but might earn lower grades. If this situation occurs, we say that you trade off grades and income.

Societies, like individuals, face scarcities and must make choices, that is, have **tradeoffs**. Because resources are scarce, a nation cannot produce as much of everything as it wants. When it produces more health care, it must forgo the production of education, automobiles, or military hardware. When it devotes more of its resources to the military, fewer resources are available to devote to healthcare, education, or consumer goods.

RECAP

1. Scarcity exists when people want more of an item than exists at a zero price.
2. Goods are produced with resources (also called factors of production and inputs). Economists have classified resources into three categories: land, labor, and capital.
3. Choices have to be made because of scarcity. People cannot have or do everything they desire all the time. Economics is the study of how people choose to use their scarce resources in an attempt to satisfy their wants.
4. Opportunity costs are the benefits that are forgone due to a choice. When you choose one thing you must give up—forgo—others.
5. Opportunity cost is an individual concept but can be used to demonstrate scarcity and choice for a society as a whole.

2. SPECIALIZATION AND EXCHANGE

Are you good with computers or reading or writing? Are you a good golfer or tennis player? Can you fix electrical or plumbing problems or work on large

TABLE 1
Production Possibilities

100 Percent of Effort Devoted To:	Output Per Day	
	<i>Maria</i>	<i>Able</i>
Math Problems	10	10
Pages of an Economics Paper	10	5

appliances? Even if you are good at all these things, do you do them all? Michael Jordan is an incredible athlete, a fantastic basketball player, a AAA-level baseball player, a very good golfer, and is probably good at other endeavors. He chose to play basketball. Why? Because he is better at basketball than he is at other things; he would have to forgo or give up too much trying to be a professional golfer or baseball player. Martha Stewart has developed an amazing business. She seems to be into everything—gardening, decorating, cooking, designing, and so on. While she has superb ideas and is very creative, she chooses to have others manage her business and invest her money. Why? Because she is relatively better at presenting the gardening, cooking, and decorating ideas than she is in the day-to-day management of her business. She would have to forgo or give up too much if she focused her attention on managing the business and investing her money. Neither these two superstars nor any of us can do everything. Even if Martha Stewart is a great business manager, she is relatively better as a television and magazine personality. She can't do everything. Even if Michael Jordan is an incredible athlete he is relatively better at basketball. He can't do everything. Similarly, we can't do everything. We have scarce resources, including limited time, and must choose to do what we do relatively best.

2.a. Trade

At any moment in time individuals are endowed with certain resources and abilities. People can choose to be self-sufficient—using and consuming their resources and output themselves—or they can choose to exchange goods and services with others. By trading, they get more than they can by being self-sufficient.

Consider a very simple example. Suppose two people, Maria and Able, have resources and abilities to produce the combinations of two goods, math problems and pages of an economics paper, shown in Table 1. If Maria devotes all of her time and energy to pages of an economics paper, she would be able to write 10 pages of an economics paper a day. If she devotes all of her resources to math problems, she could complete 10 math problems a day. Able, on the other hand could write 5 pages of an economics paper if he devoted his entire time to the paper or he could complete 10 math problems a day if he concentrated on the math.

2.b. Comparative Advantage

Notice the costs of these activities to the two people. If Maria focuses on the economics paper, she writes 10 pages but she gives up completing the 10 math problems. Her opportunity cost of producing 10 pages of an economics paper is, therefore, 10 math problems. Able's opportunity cost of producing 5 pages of an economics paper is 10 math problems. Thus, while Able's opportunity cost of producing 1 page of an economics paper is 2 math problems, Maria's opportunity cost of 1 page of an economics paper is 1 math problem.

Maria is more efficient at writing the economics paper. We say that Maria

The fruit of the prickly pear cactus is popular in salads and drinks. Recently, the extract from the cactus leaves has been found to relieve some of the symptoms of diabetes. Physicians in Mexico and Japan prescribe the extract as a substitute for insulin in some cases and as an enhancement to insulin in others. Though the prickly pear cactus grows in the southwestern United States as well, the harvesting of the cacti occurs mainly in Mexico because most of the prickly pear cactus forests are in Mexico, and the labor-intensive harvesting process is less costly in Mexico than it would be in the United States. Mexico has a comparative advantage in the harvesting of the cacti.



■ **comparative advantage:**
the ability to produce a good or service at a lower opportunity cost than someone else

has a **comparative advantage** in writing the paper. Able, then, has a comparative advantage in math problems—he gives up 1/2 page of an economics paper for each math problem he completes while Maria gives up 1 page of the paper for each math problem.

Maria and Able could each produce both the paper and the math problems, or one could write the papers and the other do the math problems. If each specializes where each has a comparative advantage—Maria produces the economics paper and Able completes the math problems—they can then trade to get what they want. Suppose Able wanted 5 pages of an economics paper. Maria might be willing to write 5 pages for Able, but only if she could get no less than 1 completed math problem in exchange for each page she writes. Since Able is willing to give any amount up to 2 completed math problems for each page of an economics paper, a trade could be arranged.

2.c. Gains from Trade

■ **gains from trade:**
the additional amount traders get relative to what they could produce without trade

Suppose Able agrees to do 8 math problems for Maria if she will write 5 pages of an economics paper for him. Then Maria ends up with 8 completed math problems and has a 5-page economics paper for herself, while Able gets 2 completed math problems and a 5-page economics paper. Maria by herself could have completed only 5 math problems and written 5 pages of an economics paper, so she gains 3 math problems with the trade. Able by himself could have written only 5 pages of an economics paper. He would not have completed any math problems, so he gains 2 completed math problems with the trade.

Both parties have gained from the trade. The amount each party gets beyond what each alone could have produced is called the **gains from trade**.

This simple example illustrates how the real world works. People focus on what they do best and then trade with others. You cook and your roommate cleans; you work on computers and let someone else fix your car; you purchase groceries letting someone else grow the food.

We have to decide how to use our own scarce resources. We must choose where to devote our energies. Few of us are jacks-of-all-trades. Nations, similarly, have limited amounts of resources and must choose where to devote those resources.

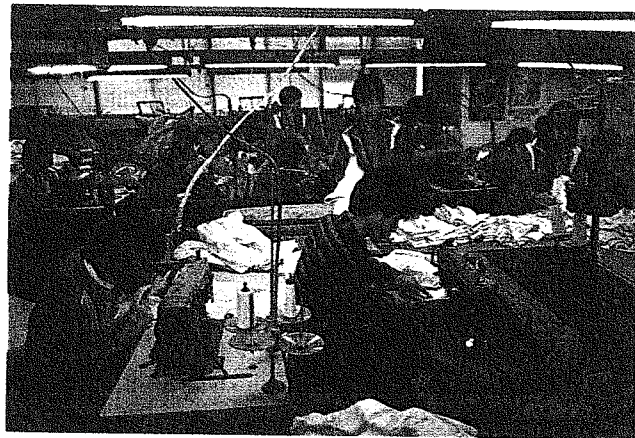
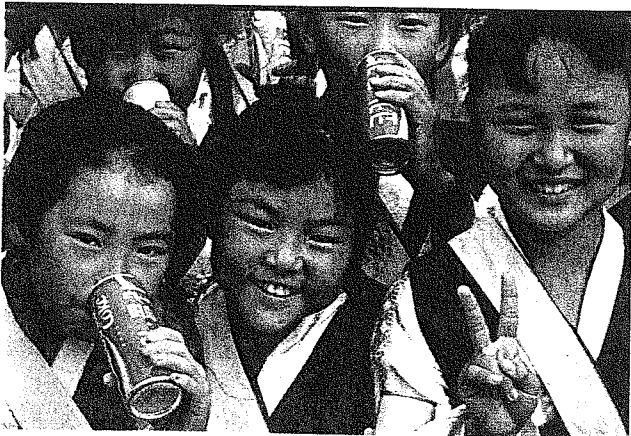
Our objective as individuals and as citizens of a nation is to get the most at the least cost. We can do this by specializing in those activities that require us to give up the smallest amount of other things, in other words, where we have a comparative advantage. A plumber does plumbing and leaves teaching to the teachers. The teacher teaches and leaves electrical work to the electrician. Grenada specializes in spice production and leaves manufacturing to the United States. But if we specialize, how do we get the other things we want? The answer is that we trade.

RECAP

1. Exchange occurs because all parties believe the exchange can be beneficial.
2. Opportunity cost is the amount of one good or service that must be given up to obtain one additional unit of another good or service.
3. The rule of specialization is: the individual (firm, region, or nation) will specialize in the production of the good or service that has the lowest opportunity cost.
4. Specialization and trade enable individuals, firms, and nations to get more than they could without specialization and trade.
5. By specializing in an activity one does relatively better than other activities, one can trade with others and gain more than if one carried out all activities oneself. These are referred to as gains from trade.

3. INTERNATIONAL TRADE

Trade occurs because it makes people better off. Trade among nations (or international trade) occurs because it makes the citizens of those nations better off than they would be if they could consume only domestically produced products.



Trade between the United States and the Asian nations has been growing for several years even though some of the Asian nations attempt to restrict the sale of foreign goods in their country or to otherwise limit trade. In the photo on the left, it is clear that Coca Cola has been able to enter the Korean market, dominating its soft drink industry. The United States has been relatively open to foreign goods. Although threatening trade sanctions against Japan or China at times, citizens of the United States clamor for goods made in other nations. In the photo on the right, seamstresses in Korea prepare clothes for major distributors in the United States.

3.a. Trade Patterns

Table 2 shows patterns of trade between two large groups of countries: the industrial countries and the developing countries. The industrial countries include all of Western Europe, Japan, Australia, New Zealand, Canada, and the United States. The developing countries are, essentially, the rest of the world. The table shows the dollar values and percentages of total trade between these groups of countries. The vertical column at the left lists the origin of exports (sales), and the horizontal row at the top lists the destination of imports (purchases).

As Table 2 shows, trade between industrial countries accounts for the bulk of international trade—\$2.4 trillion in value and 47 percent of world trade. Exports from industrial countries to developing countries represent 19 percent of total world trade. Exports from developing countries to industrial countries account for 19 percent of total trade, while exports from the developing countries to other developing countries currently represent 15 percent of international trade.

More United States' products are sold to Canada than any other country—about 22 percent of all of U.S. exports. The U.S. purchases more from Japan than it does any other country; about 21 percent of all U.S. purchases from other countries are from Japan. The biggest trading partners with the United States are Canada, Japan, Mexico, the United Kingdom, and Germany.

3.b. Barter and Money

By specializing in activities in which opportunity costs are lowest and then trading, each trader (country, individual) will end up with more than if each tried to produce everything. Specialization and trade enable nations to acquire combinations of goods that are greater than what their own resource capabilities would allow, just like specialization and trade enable people to acquire combinations of goods that are greater than what they alone could produce. Even though one person, one firm, or one nation is limited to the combinations of goods it can produce using its own resources, through specialization and trade more goods can be acquired. This is why people, firms, and nations trade.

Traders are simply buyers and sellers. When you go to the store to purchase groceries, you are trading money for groceries. When you purchase your textbooks, you are trading money for textbooks. The McDonald's employee acts as a middleman for the firm and trades the hamburger, fries, and shake for money. The employee is trading his or her time for money.

TABLE 2
The Direction of Trade
(in billions of dollars and percentages of world trade)

Origin	Destination	
	Industrial Countries	Developing Countries
Industrial Countries	\$2,435 47%	\$1,011 19%
Developing Countries	\$961 19%	\$770 15%

Source: International Monetary Fund, *Direction of Trade Statistics*, Annual Edition, 1997

■ **barter:**
trade without the use of money

In some cases, people trade goods for goods or services for services and no money changes hands. These cases are referred to as **barter** trades. In most instances, barter is too complicated to serve as a means of trade. Let's say you needed a textbook. In a barter world, you would have to find someone with the textbook who also wanted something you had. If you did not have what he wanted, then you would have to find another person who wanted what you had and had what the textbook owner wanted. Then you would have to make two trades to get the textbook. This type of world would get very complicated quickly. This is why money has arisen in virtually every society from the beginning of time. There are reports of rocks and shells being used for money in primitive societies, and gold and silver have been used in modern times. Today, most monies are printed and/or coined out of inexpensive materials.

Each nation has its own money or currency. Table 3 lists the currency name and symbol for several countries.

■ **exchange rate:**
the price at which one currency is exchanged for another

Since each nation has its own currency, currencies have to be exchanged in order for nations to trade. The price at which currencies are exchanged is called an **exchange rate**. For instance, the exchange rates existing on January 23, 1998, between the U.S. dollar and a few currencies are listed in Table 4. According to the data, the Australian dollar was worth a little less than \$.67; the British pound was worth a little less than \$1.63; and so on. Exchange rates are reported daily in most newspapers.

TABLE 3
International Currency Symbols, Selected Countries

<i>Country</i>	<i>Currency Name</i>	<i>Currency Symbol</i>
Australia	Dollar	A\$
Austria	Schilling	Sch
Belgium	Franc	BF
Canada	Dollar	CS
China	Yuan	Y
Denmark	Krone	DKr
Finland	Markka	FM
France	Franc	FF
Germany	Deutsche mark	DM
Greece	Drachma	Dr
India	Rupee	Rs
Iran	Rial	RI
Italy	Lira	Lit
Japan	Yen	¥
Kuwait	Dinar	KD
Mexico	Peso	Ps
Netherlands	Guilder	Fl
Norway	Krone	NKr
Russia	Ruble	Rub
Saudi Arabia	Riyal	SR
Singapore	Dollar	SS
South Africa	Rand	R
Spain	Peseta	Pts
Sweden	Krona	SKr
Switzerland	Franc	SF
United Kingdom	Pound	£
United States	Dollar	\$
Venezuela	Bolivar	B

TABLE 4
Exchange Rate Between the U.S. Dollar and Selected Currencies,
January 23, 1998

<i>Country</i>	<i>U.S. \$ Equivalent</i>
Australia (dollar)	.6678
Belgium (franc)	.02630
Britain (pound)	1.6270
Canada (dollar)	.6935
Germany (mark)	.5438
Japan (yen)	.00778

If in January 1998 a U.S. buyer wanted to purchase a pair of Doc Marten shoes priced at £80 from a British seller, the buyer would have had to first exchange enough dollars to get £80. Since one pound was worth 1.627 dollars, it would take $1.627 \times 80 = \$130.16$ dollars. For another example, suppose you were asked by an international agency to do some work for them. The agency agreed to pay you 20,000 BF (Belgian francs). How much would that be in dollars? In January 1998, the U.S. dollar equivalent of the BF was .0263. So, $20,000\text{BF} \times \$/\text{BF}.0263 = \526 . As we shall learn later, exchange rate changes have important implications for international trade.

RECAP

1. Trade is typically carried out using money; however, some trades are goods for goods or services for services. These are called barter trades.
2. International trade requires that the currencies of the trading nations be converted from one to another. The price at which the currencies are exchanged is the exchange rate.
3. What is traded, that is, the pattern of trade, depends on comparative advantage and on consumer preferences.

SUMMARY

What is economics?

1. The objective of economics is to understand why the real world is what it is.
2. The resources that go into the production of goods are land, labor, and capital.
3. Economics is the study of how people choose to allocate scarce resources to satisfy their unlimited wants.

What are the principles of economics?

4. Scarcity is universal; it applies to anything people would like more of than is available at a zero price. Because of scarcity, choices must be made.

What are opportunity costs?

5. Opportunity costs are the forgone opportunities of the next best alternative. Choice means both gaining something and giving up something. When you choose one option, you forego all others. The benefits of the next best alternative are the opportunity costs of your choice.

How are specialization and opportunity costs related?

6. Comparative advantage is when one person (one firm, one nation) can perform an activity or produce a good with fewer opportunity costs than someone else.

Why does specialization occur?

7. Comparative advantage accounts for specialization. We specialize in the activities in which we have the lowest opportunity costs, that is, in which we have a comparative advantage.

What are the benefits of trade?

8. Specialization and trade enable those involved to acquire more than they could by not specializing and engaging in trade. The additional amount acquired from trade is called the gains from trade.

9. Trade can be made using barter—trading goods for goods or services for services—or using money.
10. If international trade occurs and the countries have different monies, or currencies, then the currencies have to be convertible. The rate at which currencies are convertible is called the exchange rate.

KEY TERMS

scarcity
free good
economic bad
resources
land
labor
capital

financial capital
opportunity costs
tradeoffs
comparative advantage
gains from trade
barter
exchange rate

EXERCISES

1. Which of the following are economic goods? Explain why each is or is not an economic good.
 - a. Steaks
 - b. Houses
 - c. Cars
 - d. Garbage
 - e. T-shirts
2. It is well documented in scientific research that smoking is harmful to our health. Smokers have higher incidences of coronary disease, cancer, and other catastrophic illnesses. Knowing this, about 30 percent of young people begin smoking and about 25 percent of the U.S. population smokes. Are the people who choose to smoke irrational? What do you think of the argument that we should ban smoking in order to protect these people from themselves?
3. Use economics to explain why diamonds are more expensive than water, when water is necessary for survival and diamonds are not.
4. Use economics to explain why people leave tips in the following two cases: (a) at a restaurant they visit often; (b) at a restaurant they visit only once.
5. Use economics to explain why people contribute to charities.
6. In presidential campaigns, candidates always seem to make more promises than they can fulfill. In their first campaign, President Clinton and Vice President Gore promised more and better health care, a better environment, only minor reductions in defense, better education, and better roads, bridges, sewer systems, and water systems, and so on. Accepting the promises as facts, what economic concept were the critics claiming that Clinton and Gore ignored?
7. Perhaps you've heard of the old saying "There is no such thing as a free lunch." What does it mean? If someone invites you to a lunch and offers to pay for it, is it free to you?
8. During China's Cultural Revolution in the late 1960s and early 1970s, many people with a

high school or college education were forced to move to farms and work in the fields. Some were common laborers for eight or more years. What does this policy say about specialization? Would you predict that the policy would lead to an increase in output?

9. Use Table 4 to calculate the U.S. dollar price of:

A shirt manufactured in Belgium and selling there for 5,000BF.

A boomerang selling in Australia for 40A\$.

A box of tea selling in Britain for 5£.

A car selling in Japan for 50,000¥.

INTERNET EXERCISE

This chapter focuses on specialization and trade. Use the Internet to examine international trade across countries. Go to the Boyes/Melvin *Fundamentals of Economics* Web site at <http://www.hmco.com/college/> and click on the Internet Exercise link for Chapter 1. Now answer the questions found on the Boyes/Melvin Web site.